

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2004/008750

## A. CLASSIFICATION OF SUBJECT MATTER

Int.Cl<sup>7</sup> H01M8/04, H01M8/10, H01M8/02, G01N27/06, G01N27/22

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl<sup>7</sup> H01M8/04, H01M8/10, H01M8/02, G01N27/06, G01N27/22

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Jitsuyo Shinan Koho 1922-1996 Toroku Jitsuyo Shinan Koho 1994-2004

Kokai Jitsuyo Shinan Koho 1971-2004 Jitsuyo Shinan Toroku Koho 1996-2004

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	JP 2003-132924 A (Yuasa Corp.), 09 May, 2003 (09.05.03), Claim 4; Par. No. [0018]; Fig. 1 (Family: none)	1-36
A	US 5624538 A (Siemens AG.), 29 April, 1997 (29.04.97), Column 2, lines 13 to 21, 51 to 62 & EP 684469 A2	1-36
A	JP 2003-507859 A (Siemens AG.), 25 February, 2003 (25.02.03), Claims 1, 3; Par. Nos. [0011], [0012], [0014] & US 2002/109511 A1 & WO 01/13451 A1	11, 33

☐ Further documents are listed in the continuation of Box C.☐ See patent family annex.

\* Special categories of cited documents:

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"E" earlier application or patent but published on or after the international filing date

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"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

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"&amp;" document member of the same patent family

Date of the actual completion of the international search  
17 September, 2004 (17.09.04)Date of mailing of the international search report  
12 October, 2004 (12.10.04)Name and mailing address of the ISA/  
Japanese Patent Office

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## C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	JP 64-500054 A (University of Strasclyd.), 12 January, 1989 (12.01.89), Page 2, upper right column, line 19 to lower left column, line 9; page 4, lower right column, line 12 to page 5, upper right column, line 11; Fig. 1 & WO 87/5624 A1	1-36
A	JP 11-510311 A (California Institute of Technology), 07 September, 1999 (07.09.99), Page 39, line 8 to page 40, line 2; Fig. 10 & US 5599638 A & WO 97/21256 A1	1-36
A	JP 2002-520778 A (Ballard Power Systems Inc.), 09 July, 2002 (09.07.02), Claim 1; Par. No. [0040] & WO 00/2282 A1	1-36